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(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
26 April 2001 (26.04.2001)

PCT

(10) International Publication Number
WO 01/29740 A2

(51) International Patent Classification⁷: **G06F 17/60**

(21) International Application Number: **PCT/US00/29198**

(22) International Filing Date: 23 October 2000 (23.10.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/422,069 21 October 1999 (21.10.1999) US

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(81) Designated States (*national*): AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW.

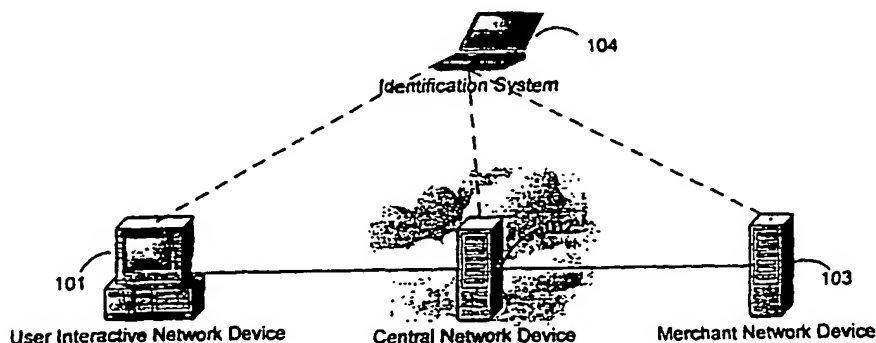
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

— Without international search report and to be republished upon receipt of that report.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **HYBRID HORIZONTAL SALES SYSTEM FOR BRIDGING A GAP BETWEEN THE ONLINE WORLD AND PHYSICAL STORES**



(57) Abstract: A hybrid sales system that bridges a gap between the online world and physical stores includes at least one merchant network device, at least one central network device, at least one user interactive network device, and at least one identification system. The merchant network device, the central network device, the user interactive network device, and the identification system are interconnected by a network. The merchant network device contains information regarding physical stores and is programmed to communicate with the central network device. The central network device is programmed to receive from a registered user at the user interactive network device a user request relating to a transaction, to communicate with the merchant network device, and to provide to the registered user a summary response to the user request. The summary response includes a list of physical stores that satisfy the user request. The user interactive network device is programmed to communicate with the central network device. Lastly, the identification system notifies the central network device, the merchant network device, the user interactive network device, or any combination of the three devices, when the registered user completes a transaction at a physical store.

**Hybrid Horizontal Sales System for Bridging a Gap Between the Online World
and Physical Stores**

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BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to a hybrid sales system for bridging a gap
10 between online virtual presences accessible through open networks, such as the
Internet, and physical stores. The invention uses a plurality of devices, networks,
and software to achieve a convenient and secure environment for marketing goods
and services.

Discussion of the Related Art

15 Historically, an enormous amount of time, money, and effort has been
expended by companies and individuals in order to advertise and sell their products
and services. For generations, various media have been used to realize such business
matters.

20 Recently, the pervasive nature of open networks, such as the Internet, has
provided a global means to attract new customers and retain old customers.
Purchasing can now be linked to advertising in this age of technology and rapidly
evolving communications. Open networks transcend distance; a person from
Bombay can sell a Cashmere sweater to another individual in Butte, Montana using
a virtual storefront, also known as a "web page". All that is required to transition
25 from information gathering to purchasing is client software to select merchandise
and indicate the quantity, desired means of payment, and delivery options.

There are several drawbacks related to the aforementioned methodology that are becoming more apparent as organizations rush headlong to secure their stake in this "online world."

The first disadvantage of this method is the overwhelming amount of
5 information that the customer must negotiate to find a particular item or service. Locating a particular good or service is a time consuming process that often results in the customer abandoning either the search or the completion of the transaction.

A second disadvantage is that the retailer and customers often have never had a prior relationship on which to base trust and a mutually satisfactory level of
10 credibility. The customer may wonder: "If I complete this transaction, will I really get my Cashmere sweater from this merchant in Bombay?" The retailer may ask: "Is this customer using a valid form of payment or is the customer in fact attempting to commit fraud?"

A third disadvantage is that several products and services do not lend
15 themselves to purchasing online; clothes and shoes are obvious examples as the types of products that must be examined physically to qualify several attributes that cannot be specified either by language or graphics.

The Internet-type business presents disadvantages for businesses such as home improvement, brick and mortar physical retailers. For many traditional
20 retailers, their business strength is physical location and established brand image. The Internet essentially evens the playing field, diluting brand image and handicapping physical distribution power.

Another major disadvantage for traditional retailers is the risk open networks pose to foot traffic and impulse expenditures. Foot traffic is critical to many traditional retailers, as impulse expenditures are responsible for generating up to 40% of total sales. Holding all else constant, the economics of online shopping differ greatly from that of traditional commerce. For instance, if consumers go to the Gap.com to purchase a pair of chinos, they are likely to only locate the chinos, complete the transaction, and then log off. However, if these consumers physically go to a local Gap store to purchase the same chinos, it is likely that the shoppers also will purchase 1.5 additional items. Unfortunately, traditional retailers have not been able to design an open network solution that will leverage their existing strengths and protect their valuable foot traffic.

In short, what is required is a hybrid solution that takes advantage of the information-centric nature of open networks combined with the recognized security and tactile experience of physical store transactions.

Thus, there is a great need in the art for an over-arching, comprehensive system and method for finding and procuring commercial product and service information both on and off open networks, in a way which encompasses the advantages and avoids the shortcomings of previous methodologies that were concerned with solely addressing virtual storefronts or physical stores, but not both.

SUMMARY OF THE INVENTION

Accordingly, the present invention is directed to a hybrid sales system for

bridging a gap between the online world and physical stores that substantially obviates one or more of the problems due to limitations and disadvantages of the related art.

To achieve these and other advantages and in accordance with the purpose of the present invention, as embodied and broadly described, the hybrid sales system that bridges a gap between the online world and physical stores comprises at least one merchant network device, at least one central network device, at least one user interactive network device, and at least one identification system, which are interconnected by a network. The at least one merchant network device contains information regarding physical stores and is programmed to communicate with the at least one central network device. The at least one central network device is programmed to receive from a registered user at the at least one user interactive network device at least one user request for information regarding at least one transaction, to communicate with the at least one merchant network device, and to provide the registered user at least one summary response to the at least one user request including at least one list of physical stores that satisfy the at least one user request. Moreover, the at least one user interactive network device is programmed to communicate with the at least one central network device. Finally, the at least one identification system notifies the at least one central network device, the at least one merchant network device, or the at least one user interactive network device, when the registered user completes the at least one transaction at a physical store.

In another aspect, the invention includes a consumer purchase behavior analysis system to distinguish impulse purchase from non-impulse purchase including at least one merchant network device, at least one central network device, at least one user interactive network device, and at least one identification system, 5 which are interconnected by a network. The at least one merchant network device contains information regarding physical stores and is programmed to communicate with the at least one central network device. The at least one central network device is programmed to receive from a registered user at the at least one user interactive network device at least one user request for information relating to at least one 10 transaction, to communicate with the at least one merchant network device, and to provide to the registered user at least one summary response to the at least one user request. The at least one user interactive network device is programmed to communicate with the central network device. The at least one identification system notifies the at least one central network device, the at least one merchant network 15 device, or the at least one user interactive network device, when the registered user completes the at least one transaction at a physical store. At least one online browsing record and at least one actual transaction record are stored in the at least one central network device, the at least one merchant network device, the at least one user interactive network device, or the at least one identification system. Finally, the 20 at least one online browsing record and the at least one actual transaction record are compared with the at least one central network device, the at least one merchant

network device, the at least one user interactive network device, or the at least one identification system.

Additional features and advantages of the invention will be set forth in the description, which follows, and in part will be apparent from the description, or may
5 be learned by practice of the invention. The objectives and other advantages of the invention will be realized and attained by the structure particularly pointed out in the written description and claims hereof as well as the appended drawings

It is to be understood that both the foregoing general description and the following detailed description are exemplary and explanatory and are intended to
10 provide further explanation of the invention as claimed.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings, which are included to provide a further understanding of the invention and are incorporated in and constitute a part of this specification, illustrate embodiments of the invention and together with the
15 description serve to explain the principles of the invention. In the drawings:

FIG. 1 is an overall system block diagram of a preferred embodiment of a hybrid sales system of the present invention;

FIG. 2 is a flow chart depicting one embodiment of an operation of the present invention;

20 FIG. 3 is a flow chart depicting one embodiment of an operation of the present invention that includes rewarding a user;

FIG. 4 is a flow chart depicting one embodiment of an operation of the present invention that includes creating revenue sharing information;

FIG. 5 is a flow chart depicting one embodiment of an operation of the present invention that includes rewarding a user and creating revenue sharing
5 information;

FIG. 6 is a block diagram showing one embodiment of information sharing between the central network device and the merchant network device;

FIG. 7 is a flow chart showing how another embodiment of information sharing between the central network device and the merchant network device
10 operates; and

FIG. 8 is an overall system block diagram of a preferred embodiment of a consumer purchase behavior analysis system of the present invention; and

FIG. 9 is a flow chart depicting one preferred embodiment of an operation of the consumer purchase behavior analysis system of the present invention.
15

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Reference will now be made in detail to the preferred embodiments of the present invention, examples of which are illustrated in the accompanying drawings.

With reference to FIG. 1, a preferred embodiment of a hybrid sales system in
20 accordance with the present invention includes at least one user interactive network device 101 operated by a registered user desiring to conduct a transaction with a

physical store, at least one merchant network device 103, which includes information regarding physical stores, at least one central network device 102, typically operated by a manager of the hybrid sales system, and at least one identification system 104.

5 The user interactive network device 101, the merchant network device 103, the central network device 102, and the identification system 104 are interconnected by a network. In FIG. 1, a solid line between two devices indicates that the two devices must be able to communicate with each other. A broken line between two devices indicates that the two devices may or may not communicate directly with
10 each other.

 Networks used to connect the user interactive network device 101, the central network device 102, the merchant network device 103, and the identification system 104 may be terrestrial systems including the Internet, phone lines, cable lines, and fiber optic cables or wireless communication systems. One or more types of
15 networks may be used to connect the devices that comprise the hybrid sales system. For example, the user interactive network device may access the Internet using an Internet service provider and communicate with the central network device by accessing its web page. The central network device and the merchant network device may communicate with each other via fiber optic cables. The identification
20 system may use a telephone line to communicate with the central or merchant network device. This and other network configurations of the hybrid sales system

will be known to those skilled in the art, and are within the scope of this invention.

A user of the hybrid sales system must register with the central network device 102 before being able to make a full use of the hybrid sales system. While the central network device 102 may grant an unregistered user an access, registration
5 is necessary, for example, to reward the user for using the hybrid sales system. Registration can be done in a variety of ways such as using the Internet, telephone or mail.

The user interactive network device 101 may be a personal computer with an Internet access. Alternatively, it can be a dummy terminal with an access to the
10 Internet through a server machine or an information appliance such as a personal data assistant or cellular phone. Dummy terminals may be provided in a kiosk-like setting within a shopping mall or other public areas to grant a convenient access to the central network device 102. Other user interactive network devices will be known to those skilled in the art, and are within the scope of the present invention.

15 The central network device 102 is programmed to receive a user request from the user interactive network device 101, generate a summary response based on the user request, and to send a summary response to the user interactive network device 101. The central network device is programmed to communicate with the merchant network device 103 to obtain information regarding physical stores. In addition, the
20 central network device 102 may be programmed to communicate with the identification system 104 so that the central network device can receive information

regarding transactions at physical stores.

The merchant network device 103 contains information regarding physical stores. Typically, the merchant network device 103 maintains a database containing information regarding products or services. For example, database for a clothing
5 store may contain information regarding style, material, color, size, quantity, and price. Database for a doctor's office, on the other hand, may contain description of services provided, fees charged for each service, information on doctors, and types of health insurances accepted.

The merchant network device 103 is programmed to communicate with the
10 central network device. It may be programmed to periodically send information regarding physical stores to the central network device 102. Alternatively, it also may be programmed to accept a central information request from the central network device 102, construct a merchant response to the central information request, and send the merchant response to the central network device 102. Communication
15 between the merchant network device 103 and the central network device 102 regarding information on physical stores is described in detail in conjunction with FIGS. 6 and 7. In addition, the merchant network device 103 may be programmed to communicate with the identification system 104 so that the merchant network device may receive information regarding transactions at physical stores.

20 The identification system 104 is capable of communicating with the central network device 102, the merchant network device 103, or the user interactive

network device 101, when the registered user completes a transaction at a physical store. The identification system 104 also allows the registered user to identify himself or herself so that transactions can be tied to the user. The identification system 104 may be a wireless information device, a non-volatile area of memory of the user interactive network device 101, a memory card and a card reader, a microprocessor card and a card reader, a magnetic card and a card reader, a finger print scanning device and a point-of-transaction network device, an iris-scanning device and a point-of-transaction network device, a face recognition device and a point-of-transaction network device, or a voice recognition device and a point of transaction network device. The identification system 104 can also be an information appliance integrated with the user interactive network device 101, such as a Personal Data Assistant, cellular telephone, interactive pager, and set-top box. Other identification systems will be known to those skilled in the art, and are within the scope of this invention. The identification system 104 also may require the user to manually enter his or her identification code. Alternatively, the user interactive network device 101 may function as the identification system 104.

The system shown in FIG. 1 may be set up to ensure security of transaction and data, by securing the devices in the system and network interconnecting them. This may be done, for example, by using a password based access limitation, common encryption software or hardware, or common authentication/general cryptographic software or hardware. Other security tools will be known to those

skilled in the art, and are within the scope of the present invention. In addition, by encrypting data regarding users of the system, the system can protect privacy of the users.

The present invention can be used to help a user locate a variety of products and services available at physical stores. Products can be almost anything that is sold at stores, including clothing, grocery, personal care items, books, jewelry, bicycles, automobiles, and furniture. Types of services also may vary widely, including medical care, personal care and dependent care. In other words, the application of this invention is not limited to any particular product or service.

FIGS. 2-5 are flow charts showing preferred embodiments of various uses of a hybrid sales system of the present invention. Some of the steps shown in the flow charts may be implemented in a computer program that may be installed in the user interactive network device, the central network device, the merchant network device, or the identification system.

FIG. 2 is a flow chart depicting one embodiment of a process using a hybrid sales system of the present invention. The process starts when a user accesses the central network device using the user interactive network device in step 201. In step 202, the user sends a user information request from the user interactive network device to the central network device. Then, the central network device constructs a summary response to the user request and sends it to the user in steps 203 and 204. In constructing a summary response, the central network device may communicate

with the merchant network device, which will be described in detail later in conjunction with FIGS. 6 and 7. The summary response is displayed at the user interactive network device in step 205. In step 206, the user has an option of repeating steps 202 through 205.

5 In step 207, the user decides whether to complete one or more of the transactions that he or she inquired about in steps 202 through 205 at one or more physical stores. Generally, the user completes a transaction at a physical store listed in one of the summary responses provided by the central network device. However, the user may choose to go to a physical store that is equipped with an identification
10 system but was not listed in the summary responses. At a physical store, the user completes a transaction using the identification system in step 208. Finally, in step 209, the identification system notifies the central network device, the merchant network device, the user interactive network device, or any combination of the three devices about the transaction completed by the user.

15 In a user request issued in step 202, a user may be allowed to specify various characteristics of a product or a service provider. If a user knows exactly what he or she wants, the user may specifically identify that particular item or service provider, such as a man's navy double-breasted wool jacket by Burberry in size 40 or a female
20 pediatrician with at least 10 years of experience who belongs to a certain HMO group. On the other hand, a user may request the central network device to find items or service providers that meet certain criteria. For example, the user may ask

the central network device to find all man's navy double-breasted wool jackets in size 40 or all travel agencies that specialize in domestic business travel reservations.

Furthermore, a user may be allowed to specify not only types of a product or service that he or she is interested in but also various criteria for physical stores. For example, a user may require a physical store to be located within a certain distance from his or her home. A user may wish to go to a store located at a certain shopping center or specify a name of a particular chain, such as Sears, K-Mart, Bloomingdale's, or American Express Travel Service. A user also may require physical stores to carry the desired item or service at or below a certain price or offer a certain level of customer service.

A summary response constructed by the central network device also may include information other than a list of physical stores that meet user's criteria set forth in the user request. For example, a user requests a department store within 10 miles of the user having a size 2 navy wool suit by Ellen Tracy, but the central network device does not find any department store that has the desired product in stock. The central network device may give a list of department stores outside the 10-mile range that carry similar items. Alternatively, it may prompt a user to enter another user request in order to change one or more of the search criteria or to request an entirely new search.

FIG. 3 depicts another embodiment of a process that can be implemented using the present invention. This process starts when a user accesses the central

network device using the user interactive network device in step 301. In step 302, the user sends a user information request from the user interactive network device to the central network device. Then the central network device constructs a summary response to the user information request and sends it to the user in steps 303 and

5 304. The summary response is displayed at the user interactive network device in step 305. In step 306, the user has an option of repeating steps 302 through 305. In step 307, the user decides whether to complete a transaction specified in the user request at a physical store. At a physical store, the user completes a transaction using the identification system in step 308. Then, in step 309, the identification

10 system notifies the central network device, the merchant network device, the user interactive network device, or any combination of the three devices about the transaction completed by the user. Finally, in step 310, a user is rewarded for completing a qualifying user transaction.

The central network device can be programmed to flexibly define qualifying

15 user transactions to encourage its users to use a hybrid sales system. Examples of qualifying user transactions include simply accessing the at least one central network device to inquire about a certain transaction, completing a transaction specified in the at least one user request issued in step 302, and completing a transaction specified in the at least one user request issued in step 302 at a physical store listed

20 in a summary response provided to the user in steps 304 and 305. Other qualifying user transactions are known to those skilled in the art, and are within the scope of the

present invention.

There are many types of user rewards that a hybrid sales system may provide to its users. Examples of user rewards include electronic cash, a merchandise or service selected from an online or physical catalog, a gift certificate redeemable at
5 certain stores in an electronic or paper form, airline frequent flyer miles, electronic credits, and a cash refund. Other user rewards are known to those skilled in the art, and are within the scope of the invention.

The central network device may be programmed to provide one or more types of rewards. The central network device maintains a database containing
10 information necessary to compute user rewards and is programmed to calculate or distribute user rewards. The merchant network device, the user interactive network device or the identification system also may contain relevant information regarding user rewards. In such cases, the central network device is further programmed to communicate with the merchant network device, the user interactive network device,
15 or the identification system to collect user-reward related information and to compute or to distribute rewards. The central network device may issue user rewards to the user interactive network device, the merchant network device, or the central network device itself, which is programmed to allow a user to redeem such rewards.

20 FIG. 4 depicts a flow chart showing one embodiment of another use of a hybrid sales system of the present invention. In step 401, the user accesses the

central network device using the user interactive network device. In step 402, the user sends a user information request from the user interactive network device to the central network device. In steps 403 and 404, the central network device generates a summary response and sends it to the user interactive network device. In step 405, the summary response is displayed at the user interactive network device. In step 406, the user has an option of repeating steps 402 through 405. In step 407, the user decides whether to complete a transaction specified in a user request by visiting a physical store. A user completes a transaction using the identification system in step 408, and the identification system notifies the central network device, the merchant network device, the user interactive network device, or any combination of the three devices in step 409. In step 410, the central network device is rewarded when a user completes a qualifying revenue sharing transaction.

A qualifying revenue sharing transaction may be defined to include one or more types of transactions. Examples include conducting a transaction specified in the at least one user request sent by the user to the central network device either at a physical store or online, conducting a transaction specified in the at least one user request at a physical store equipped with the identification system, and conducting a transaction specified in a user request at a physical store listed in the summary response. Other qualifying revenue sharing transactions will be apparent to those skilled in the art, and are within the scope of the present invention.

The central network device, the merchant network device, the user interactive

network device, and the identification system are programmed to support one or more forms of desired qualifying revenue sharing transactions. For example, if one chooses to define a qualifying revenue sharing transaction as completion of a transaction specified in a user request at a physical store listed in the corresponding
5 summary response, the central network device may be programmed to store summary responses provided to the user, obtain actual transaction records from the merchant network device, the identification system, or the user interactive network device, and compare the actual transaction records with summary responses stored in the database to identify qualifying revenue sharing transactions. In this example,
10 information relating to revenue sharing is stored in the central network device. Alternatively, the merchant network device or the user interactive network device may be programmed to store and process a part or all of revenue sharing information.

Revenue sharing information may be used to provide a reward to various
15 destinations in various forms. Reward destinations include the central network device, a bank account, and certain individuals or corporations. For example, the central network device may receive a reward in a form of electronic cash from the merchant network device. The merchant network device may cause to have money transferred to a certain bank account. Alternatively, an individual or company
20 associated with the merchant network device may send a paper check to an individual or company associated with the central network device. Thus, there are

many different ways of utilizing revenue sharing information. Other reward destinations are known to those skilled in the art, and are within the scope of the invention.

FIG. 5 depicts yet another embodiment of a process using a hybrid sales system of the present invention. In step 501, the user accesses the central network device using the user interactive network device. The user then sends a user information request to the central network device in step 502, causes the central network device to construct and send a summary response to the user interactive network device in steps 503 and 504, and views the summary response using the user interactive network device in step 505. In step 506, the user decides whether to repeat steps 502 through 505. In steps 507 through 508, the user decides to visit a physical store and completes a transaction at a physical store using the identification system. In step 509, the identification system notifies the central network device, the merchant network device, the user interactive network device, or any combination of the three devices about the completed transaction. In step 510, the user is rewarded for completing a qualifying user transaction. Finally, revenue sharing information is created if the user completes a qualifying revenue sharing transaction in step 511.

The central network device and the merchant network device may communicate information regarding physical stores in various ways.

Figures 6 shows one embodiment of communication between the central

network device 601 and the merchant network device 602. The central network device 601 may maintain database 603 containing information on physical stores sent by the merchant network device 602. The database 603 is updated periodically as new information is sent by the merchant network device 602. The merchant
5 network device 602 also maintains database 604 containing information regarding physical stores.

FIG. 7 is a flow chart showing an alternative embodiment of a communication process between the central network device 101 and the merchant network device 102. In step 701, the user accesses the central network device using
10 the user interactive network device. The user then sends a user information request in step 702. In steps 703 and 704, the central network device constructs a central information request based on the user information request and sends it to one or more merchant network devices. Each of the merchant network devices then sends a merchant response to the central network device in step 705. In steps 706 and 707,
15 the central network device constructs a summary response based on merchant responses and sends it to the user interactive network device. In steps 708 and 709, the user views the summary response and decides whether to repeat steps 702 through 708. In step 710, user decides whether to complete one or more transactions at a physical store. In steps 711 through 712, user completes a transaction using the
20 identification system and the identification system notifies the completion of the transaction to the central network device, the merchant network device, the user

interactive network device, or any combination of the three devices.

A manner in which the central network device and the merchant network device are programmed to communicate information regarding physical stores does not affect how a hybrid sales system of the present invention may be utilized.

5 Specifically, although not shown in FIG. 7, the hybrid sales system also may be used to reward the user for completing a qualifying user transaction and/or to create revenue sharing information. In addition, the central network device and the merchant network device may communicate using a method described in conjunction with FIG. 7 but the central network device also may maintain a database
10 regarding information on physical stores.

Any one of the steps shown in FIGS. 2-5 and 7 may be implemented to ensure security of that step. For example, a step may be secured by using various data encryption or user authentication methods. Such security measures can be implemented using software or by embedding security features on hardware. In
15 addition, a network connecting the merchant network device, the central network device, the user interactive network device, and the identification system also may be secured using various network security hardware and software. Other means for securing the steps and system will be known to those skilled in the art, and are within the scope of the invention.

20 FIG. 8 is an over all system block diagram of one preferred embodiment of a consumer purchase behavior analysis system of the present invention. The system in

FIG. 8 includes at least one user interactive network device 801 operated by a registered user desiring to conduct a transaction with a physical store, at least one merchant network device 803, which includes information regarding physical stores, at least one central network device 802, typically operated by a manager of the system, and at least one identification system 804. The user interactive network device 801, the merchant network device 803, the central network device 802, and the identification system 804 are interconnected by a network. In FIG. 8, a solid line between two devices indicates that the two devices must be able to communicate with each other. A broken line between two devices indicates that the two devices may or may not communicate directly with each other.

Each of the devices in FIG. 8 is described in detail in conjunction with FIG. 1, including types of devices that can be used as the identification system 804.

In addition to the devices that are also used in the system depicted FIG. 1, the system in FIG. 8 includes database for storing online browsing records 805 and actual transaction records 806. Online browsing records may include information regarding user requests and summary responses. They also may include information regarding items or services that the user has simply "browsed" or looked at without asking for further information by issuing a user information request. Actual transaction records may include information regarding a transaction performed by a user at a physical store. While the preferred embodiment shows that both online browsing and actual transaction records are kept by the central network device 802,

the two records also can be maintained by the merchant network device 803, the user interactive network device 801, or the identification system 804. The two records may even be kept by two different devices. For example, in another embodiment, online browsing records may be kept in the user interactive network device 801 and
5 is compared against actual transaction records in the central network device 802, whenever a user accesses the central network device 802.

By comparing online browsing records against actual transaction records, it is possible to distinguish an impulse purchase from a non-impulse purchase. For example, a user uses the system to inquire about locations of physical stores that
10 carry a blue cotton t-shirt of a certain size. The online browsing record for this transaction, which includes a description of the item requested and a list of stores given to the user, is stored in the central network device 802. A few days after accessing the central network device 802 to locate a store, the user goes to one of the stores listed in the summary response to purchase the shirt. Once at the store, the
15 user decides to purchase not only the shirt but also a pair of jeans and socks to go with the shirt. At the checkout, the identification system 804 identifies the user and notifies the central network device 802, the merchant network device 803, the user interactive network device 801, or any combination of the three devices. The record of this transaction, which includes the identity of the user and items purchased, is
20 stored in the central network device 802. By comparing the online browsing record and the actual transaction record, one can determine which items are planned

purchases and which items are un-planned or impulse purchases.

While the above example applied the system to distinguish an impulse purchase from an non-impulse purchase, various other types of useful information can be obtained by comparing the two records. For example, such comparison may be used to identify stores that the user is more likely to visit, factors that affect the user in choosing a store, or an average spending per visit.

The system may be set up to ensure security of transaction and data, including database containing online browsing records and actual transaction records, by securing the devices and data in the system and by securing the network interconnecting them. This may be done, for example, by using passwords and/or encryption software or hardware. To protect the privacy of the users, it may be necessary to encrypt database containing online browsing and actual transaction records and to implement various measures to limit access to such database. Other means for securing the system will be apparent to those skilled in the art and are within the scope of the present invention.

FIG. 9 shows one embodiment of a process that uses a consumer purchase behavior analysis system of the present invention. In step 901, a user accesses the central network device using the user interactive network device. The user then sends a user information request in the step 902. In steps 903 and 904, the central network device constructs a summary response and sends it to the user. In step 905, the user views the summary response at the user interactive network device. The

user may then decide whether to repeat the steps 902 through 905 in step 906. In step 907, the online transaction record is stored. In step 908, the user decides whether to go to a physical store to complete one or more transactions at a physical store. At a physical store, the user completes the transaction using the identification system in step 909 and the identification system notifies the central network device, the merchant network device, the user interactive network device, or any combination of the three devices in step 910. The record of the actual transaction is stored in step 911. Finally in step 912, the online transaction record and the actual transaction record are compared.

During the comparison step 912, it is important not to limit the scope of the comparison to the records corresponding to most recent online browsing and most recent actual transaction. For example, a user might go to a store several weeks after inquiring about a certain transaction to complete that transaction. Meanwhile, the user might access the system to inquire about different transactions. Thus, it is advisable to compare actual transaction records with online transaction records dated several weeks or even months prior to the actual transaction.

Any one of the steps shown in FIG. 9 may be implemented to ensure security of that step. For example, a step may be secured by using data encryption or user authentication methods. Such security measures can be implemented using passwords, encryption software, or hardware with embedded security features. In addition, a network connecting the merchant network device, the central network

device, the user interactive network device, and the identification system also may be secured using various network security hardware and software. Other means of securing the steps and system will be known to those skilled in the art, and are within the scope of the invention.

5 It will be apparent to those skilled in the art that various modifications and variations can be made in the hybrid sales system for bridging a gap between the online world and physical stores of the present invention without departing from the spirit or scope of the invention. Thus, it is intended that the present invention cover the modifications and variations of this invention provided they come within the
10 scope of the appended claims and their equivalents.

What Is Claimed Is:

1. A hybrid sales system that bridges a gap between the online world and physical stores, comprising:
 - at least one merchant network device;
 - 5 at least one central network device;
 - at least one user interactive network device; and
 - at least one identification system,wherein the at least one merchant network device, the at least one central network device, the at least one user interactive network device, and the at least one
10 identification system are interconnected by a network,
 - wherein the at least one merchant network device contains information regarding physical stores and is programmed to communicate with the at least one central network device,
 - wherein the at least one central network device is programmed to receive
15 from a registered user at the at least one user interactive network device at least one user request for information relating to at least one transaction, to communicate with the at least one merchant network device, and to provide to the registered user at least one summary response to the at least one user request including at least one list of physical stores that satisfy the at least one user request,
 - 20 wherein the at least one user interactive network device is programmed to communicate with the at least one central network device, and
 - wherein the at least one identification system notifies the at least one central

network device, the at least one merchant network device, or the at least one user interactive network device when the registered user completes the at least one transaction at a physical store.

2. The hybrid sales system according to claim 1, wherein the at least one
5 identification system comprises at least one wireless information device that contains information regarding the registered user and is programmed to communicate with the at least one central network device or the at least one merchant network device.

3. The hybrid sales system according to claim 1, wherein the at least one
10 identification system comprises:

at least one non-volatile area of memory of the at least one user interactive network device that is capable of storing information regarding the registered user,
wherein the at least one user interactive network device is programmed to communicate with the at least one central network device or the at least one
15 merchant network device.

4. The hybrid sales system according to claim 1, wherein the at least one identification system comprises:
at least one memory card; and
at least one card reader that is capable of reading information stored in the at
20 least one memory card and is programmed to communicate with the at least one central network device or the at least one merchant network device.

5. The hybrid sales system according to claim 1, wherein the at least one

identification system comprises:

at least one microprocessor card; and

at least one card reader that is capable of reading information stored in the at least one microprocessor card and is programmed to communicate with the at least one central network device or the at least one merchant network device.

5 6. The hybrid sales system according to claim 1, wherein the at least one identification system comprises at least one information appliance that is capable of being integrated with the at least one user interactive network device, reads information regarding the registered user stored in the at least one user interactive network device, and is programmed to communicate with the at least one central network device or the at least one merchant network device.

 7. The hybrid sales system according to claim 6, wherein the at least one information appliance includes a Personal Data Assistant, cellular telephone, interactive pager, and set-top box.

15 8. The hybrid sales system according to claim 1, wherein the at least one identification system comprises:

at least one magnetic card capable of storing information regarding the registered user; and

at least one card reader that is capable of reading information stored in the at least one magnetic card and is programmed to communicate with the at least one central network device or the at least one merchant network device.

 9. The hybrid sales system according to claim 1, wherein the at least one

identification system comprises:

at least one finger print scanning device that is used to identify the registered user; and

at least one point-of-transaction network device that is programmed to
5 communicate with the at least one central network device or the at least one merchant network device.

10. The hybrid sales system according to claim 1, wherein the at least one identification system comprises:

at least one iris scanning device that is used to identify the registered user;

10 and

at least one point-of-transaction network device that is programmed to communicate with the at least one central network device or the at least one merchant network device.

11. The hybrid sales system according to claim 1, wherein the at least one
15 identification system comprises:

at least one face recognition device that is used to identify the registered user;

and

at least one point-of-transaction network device that is programmed to communicate with the at least one central network device or the at least one
20 merchant network device.

12. The hybrid sales system according to claim 1, wherein the at least one identification system comprises:

at least one voice recognition device that is used to identify the registered user; and

at least one point-of-transaction network device that is programmed to communicate with the at least one central network device or the at least one merchant network device.

13. The hybrid sales system according to claim 1, wherein the at least one identification system allows the registered user to manually enter an identification code and is capable of communicating with the at least one central network device or the at least one merchant network device.

10 14. The hybrid sales system according to claim 1, wherein the at least one user interactive network device is also the at least one identification system.

15 15. The hybrid sales system according to claim 1, wherein the at least one user interactive network device includes a personal computer, a dummy terminal, and an information appliance such as a Personal Data Assistant or a cellular telephone.

16. The hybrid sales system according to claim 1, wherein the information regarding physical stores contained in the at least one merchant network device includes information regarding products at physical stores.

20 17. The hybrid sales system according to claim 1, wherein the information regarding physical stores contained in the at least one merchant network device includes information regarding services at physical stores.

18. The hybrid sales system according to claim 1, wherein the network

interconnecting the at least one merchant network device, the at least one central network device, the at least one user interactive network device, and the at least one identification system is secured.

19. The hybrid sales system according to claim 1, wherein one or more of
5 the devices comprising the hybrid sales system is secured.

20. The hybrid sales system according to claim 1, wherein the registered user who completes at least one qualifying user transaction is rewarded.

21. The hybrid sales system according to claim 20, wherein the at least
one identification system comprises at least one wireless information device that
10 contains information regarding the registered user and is programmed to
communicate with the at least one central network device or the at least one
merchant network device.

22. The hybrid sales system according to claim 20, wherein the at least
one identification system comprises:
15 at least one non-volatile area of memory of the at least one user interactive
network device that is capable of storing information regarding the registered user,
wherein the at least one user interactive network device is programmed to
communicate with the at least one central network device or the at least one
merchant network device.

20 23. The hybrid sales system according to claim 20, wherein the at least
one identification system comprises:
at least one memory card; and

at least one card reader that is capable of reading information stored in the at least one memory card and is programmed to communicate with the at least one central network device or the at least one merchant network device.

24. The hybrid sales system according to claim 20, wherein the at least
5 one identification system comprises:

at least one microprocessor card; and

at least one card reader that is capable of reading information stored in the at least one microprocessor card and is programmed to communicate with the at least one central network device or the at least one merchant network device.

10 25. The hybrid sales system according to claim 20, wherein the at least one identification system comprises at least one information appliance that is capable of being integrated with the at least one user interactive network device, reads information regarding the registered user stored in the at least one user interactive network device, and is programmed to communicate with the at least one
15 central network device or the at least one merchant network device.

26. The hybrid sales system according to claim 25, wherein the at least one information appliance includes a Personal Data Assistant, cellular telephone, interactive pager, and set-top box.

27. The hybrid sales system according to claim 20, wherein the at least
20 one identification system comprises:

at least one magnetic card capable of storing information regarding the registered user; and

at least one card reader that is capable of reading information stored in the at least one magnetic card and is programmed to communicate with the at least one central network device or the at least one merchant network device.

28. The hybrid sales system according to claim 20, wherein the at least
5 one identification system comprises:

at least one finger print scanning device that is used to identify the registered user; and

at least one point-of-transaction network device that is programmed to communicate with the at least one central network device or the at least one
10 merchant network device.

29. The hybrid sales system according to claim 20, wherein the at least one identification system comprises:

at least one iris scanning device that is used to identify the registered user; and

15 at least one point-of-transaction network device that is programmed to communicate with the at least one central network device or the at least one merchant network device.

30. The hybrid sales system according to claim 20, wherein the at least one identification system comprises:

20 at least one face recognition device that is used to identify the registered user; and

at least one point-of-transaction network device that is programmed to

communicate with the at least one central network device or the at least one merchant network device.

31. The hybrid sales system according to claim 20, wherein the at least one identification system comprises:

5 at least one voice recognition device that is used to identify the registered user; and

at least one point-of-transaction network device that is programmed to communicate with the at least one central network device or the at least one merchant network device.

10 32. The hybrid sales system according to claim 20, wherein the at least one identification system allows the registered user to manually enter an identification code and is capable of communicating with the at least one central network device or the at least one merchant network device.

33. The hybrid sales system according to claim 20, wherein the at least one user interactive network device is also the at least one identification system.

34. The hybrid sales system according to claim 20, wherein the at least one user interactive network device includes a personal computer, a dummy terminal, and an information appliance such as a Personal Data Assistant or a cellular telephone.

20 35. The hybrid sales system according to claim 20, further comprising a revenue sharing system based on a qualifying revenue sharing transaction.

36. The hybrid sales system according to claim 20, wherein the network

interconnecting the at least one merchant network device, the at least one central network device, the at least one user interactive network device, and the at least one identification system is secured.

37. The hybrid sales system according to claim 20, wherein one or more
5 of the devices comprising the hybrid sales system is secured.

38. The hybrid system according to claim 20,
wherein the at least one merchant network device is programmed to
periodically send at least one merchant response including information regarding
physical stores to the at least one central network device,
10 wherein the at least one central network device stores the at least one
merchant response sent by the at least one merchant network device, and
wherein the at least one summary response is based on the at least one
merchant response stored in the at least one central network device.

39. The hybrid sales system according to claim 20,
15 wherein the at least one merchant network device is programmed to receive
at least one central information request from the at least one central network device
and is programmed to provide at least one merchant response to the at least one
central information request to the at least one central network device,
wherein the central network device is programmed to construct the at least
20 one central information request based on the at least one user request, to send the at
least one central information request to the at least one merchant network device, to
receive the at least one merchant response from the at least one merchant network

device, and

wherein the at least one summary response is based on the at least one merchant response from the at least one merchant network device.

40. The hybrid sales system according to claim 20, wherein the
5 information regarding physical stores contained in the at least one merchant network device includes information regarding products at physical stores.

41. The hybrid sales system according to claim 20, wherein the information regarding physical stores contained in the at least one merchant network device includes information regarding services at physical stores.

10 42. The hybrid sales system according to claim 1, further comprising a revenue sharing system based on a qualifying revenue sharing transaction.

43. The hybrid sales system according to claim 42, wherein the at least one identification system comprises at least one wireless information device that contains information regarding the registered user and is programmed to
15 communicate with the at least one central network device or the at least one merchant network device.

44. The hybrid sales system according to claim 42, wherein the at least one identification system comprises:

at least one non-volatile area of memory of the at least one user interactive
20 network device that is capable of storing information regarding the registered user,

wherein the at least one user interactive network device is programmed to communicate with the at least one central network device or the at least one

merchant network device.

45. The hybrid sales system according to claim 42, wherein the at least one identification system comprises:

at least one memory card; and

5 at least one card reader that is capable of reading information stored in the at least one memory card and is programmed to communicate with the at least one central network device or the at least one merchant network device.

46. The hybrid sales system according to claim 42, wherein the at least one identification system comprises:

10 at least one microprocessor card; and

at least one card reader that is capable of reading information stored in the at least one microprocessor card and is programmed to communicate with the at least one central network device or the at least one merchant network device.

47. The hybrid sales system according to claim 42, wherein the at least one identification system comprises at least one information appliance that is capable of being integrated with the at least one user interactive network device, reads information regarding the registered user stored in the at least one user interactive network device, and is programmed to communicate with the at least one central network device or the at least one merchant network device.

20 48. The hybrid sales system according to claim 47, wherein the at least one information appliance includes a Personal Data Assistant, cellular telephone, interactive pager, and set-top box.

49. The hybrid sales system according to claim 42, wherein the at least one identification system comprises:

at least one magnetic card capable of storing information regarding the registered user; and

5 at least one card reader that is capable of reading information stored in the at least one magnetic card and is programmed to communicate with the at least one central network device or the at least one merchant network device.

50. The hybrid sales system according to claim 42, wherein the at least one identification system comprises:

10 at least one finger print scanning device that is used to identify the registered user; and

at least one point-of-transaction network device that is programmed to communicate with the at least one central network device or the at least one merchant network device.

15 51. The hybrid sales system according to claim 42, wherein the at least one identification system comprises:

at least one iris scanning device that is used to identify the registered user; and

20 at least one point-of-transaction network device that is programmed to communicate with the at least one central network device or the at least one merchant network device.

52. The hybrid sales system according to claim 42, wherein the at least

one identification system comprises:

at least one face recognition device that is used to identify the registered user;

and

at least one point-of-transaction network device that is programmed to

5 communicate with the at least one central network device or the at least one merchant network device.

53. The hybrid sales system according to claim 42, wherein the at least one identification system comprises:

at least one voice recognition device that is used to identify the registered

10 user; and

at least one point-of-transaction network device that is programmed to

communicate with the at least one central network device or the at least one merchant network device.

54. The hybrid sales system according to claim 42, wherein the at least one identification system allows the registered user to manually enter an identification code and is capable of communicating with the at least one central network device or the at least one merchant network device.

55. The hybrid sales system according to claim 42, wherein the at least one user interactive network device is also the at least one identification system.

20 56. The hybrid sales system according to claim 42, wherein the at least one user interactive network device includes a personal computer, a dummy terminal, and an information appliance such as a Personal Data Assistant or a

cellular telephone.

57. The hybrid sales system according to claim 42, wherein the network interconnecting the at least one merchant network device, the at least one central network device, the at least one user interactive network device, and the at least one
5 identification system is secured.

58. The hybrid sales system according to claim 42, wherein one or more of the devices comprising the hybrid sales system is secured.

59. The hybrid system according to claim 42,
wherein the at least one merchant network device is programmed to
10 periodically send at least one merchant response including information regarding physical stores to the at least one central network device,

wherein the at least one central network device stores the at least one merchant response sent by the at least one merchant network device, and

wherein the at least one summary response is based on the at least one
15 merchant response stored in the at least one central network device.

60. The hybrid sales system according to claim 42,
wherein the at least one merchant network device is programmed to receive at least one central information request from the at least one central network device and is programmed to provide at least one merchant response to the at least one
20 central information request to the at least one central network device,

wherein the central network device is programmed to construct the at least one central information request based on the at least one user request, to send the at

least one central information request to the at least one merchant network device, to receive the at least one merchant response from the at least one merchant network device, and

wherein the at least one summary response is based on the at least one
5 merchant response from the at least one merchant network device.

61. The hybrid sales system according to claim 42, wherein the information regarding physical stores contained in the at least one merchant network device includes information regarding products at physical stores.

62. The hybrid sales system according to claim 42, wherein the
10 information regarding physical stores contained in the at least one merchant network device includes information regarding services at physical stores.

63. The hybrid sales system according to claim 1,
wherein the at least one merchant network device is programmed to periodically send at least one merchant response including information regarding
15 physical stores to the at least one central network device,

wherein the at least one central network device stores the at least one merchant response sent by the at least one merchant network device, and

wherein the at least one summary response is based on the at least one merchant response stored in the at least one central network device.

20 64. The hybrid sales system according to claim 63, wherein the at least one identification system comprises at least one wireless information device that contains information regarding the registered user and is programmed to

communicate with the at least one central network device or the at least one merchant network device.

65. The hybrid sales system according to claim 63, wherein the at least one identification system comprises:

5 at least one non-volatile area of memory of the at least one user interactive network device that is capable of storing information regarding the registered user, wherein the at least one user interactive network device is programmed to communicate with the at least one central network device or the at least one merchant network device.

10 66. The hybrid sales system according to claim 63, wherein the at least one identification system comprises:

at least one memory card; and

at least one card reader that is capable of reading information stored in the at least one memory card and is programmed to communicate with the at least one central network device or the at least one merchant network device.

67. The hybrid sales system according to claim 63, wherein the at least one identification system comprises:

at least one microprocessor card; and

20 at least one card reader that is capable of reading information stored in the at least one microprocessor card and is programmed to communicate with the at least one central network device or the at least one merchant network device.

68. The hybrid sales system according to claim 63, wherein the at least

one identification system comprises at least one information appliance that is capable of being integrated with the at least one user interactive network device, reads information regarding the registered user stored in the at least one user interactive network device, and is programmed to communicate with the at least one central network device or the at least one merchant network device.

69. The hybrid sales system according to claim 68, wherein the at least one information appliance includes a Personal Data Assistant, cellular telephone, interactive pager, and set-top box.

70. The hybrid sales system according to claim 63, wherein the at least one identification system comprises:

at least one magnetic card capable of storing information regarding the registered user; and

at least one card reader that is capable of reading information stored in the at least one magnetic card and is programmed to communicate with the at least one central network device or the at least one merchant network device.

71. The hybrid sales system according to claim 63, wherein the at least one identification system comprises:

at least one finger print scanning device that is used to identify the registered user; and

at least one point-of-transaction network device that is programmed to communicate with the at least one central network device or the at least one merchant network device.

72. The hybrid sales system according to claim 63, wherein the at least one identification system comprises:

at least one iris scanning device that is used to identify the registered user;

and

5 at least one point-of-transaction network device that is programmed to communicate with the at least one central network device or the at least one merchant network device.

73. The hybrid sales system according to claim 63, wherein the at least one identification system comprises:

10 at least one face recognition device that is used to identify the registered user;

and

at least one point-of-transaction network device that is programmed to communicate with the at least one central network device or the at least one merchant network device.

15 74. The hybrid sales system according to claim 63, wherein the at least one identification system comprises:

at least one voice recognition device that is used to identify the registered user; and

20 at least one point-of-transaction network device that is programmed to communicate with the at least one central network device or the at least one merchant network device.

75. The hybrid sales system according to claim 63, wherein the at least

one identification system allows the registered user to manually enter an identification code and is capable of communicating with the at least one central network device or the at least one merchant network device.

76. The hybrid sales system according to claim 63, wherein the at least
5 one user interactive network device is also the at least one identification system.

77. The hybrid sales system according to claim 63, wherein the at least one user interactive network device includes a personal computer, a dummy terminal, and an information appliance such as a Personal Data Assistant or a cellular telephone.

10 78. The hybrid sales system according to claim 63, wherein the network interconnecting the at least one merchant network device, the at least one central network device, the at least one user interactive network device, and the at least one identification system is secured.

79. The hybrid sales system according to claim 63, wherein one or more
15 of the devices comprising the hybrid sales system is secured.

80. The hybrid sales system according to claim 63, wherein the information regarding physical stores contained in the at least one merchant network device includes information regarding products at physical stores.

81. The hybrid sales system according to claim 63, wherein the
20 information regarding physical stores contained in the at least one merchant network device includes information regarding services at physical stores.

82. The hybrid sales system according to claim 1,

wherein the at least one merchant network device is programmed to receive at least one central information request from the at least one central network device and is programmed to provide at least one merchant response to the at least one central information request to the at least one central network device,

5 wherein the central network device is programmed to construct the at least one central information request based on the at least one user request, to send the at least one central information request to the at least one merchant network device, to receive the at least one merchant response from the at least one merchant network device, and

10 wherein the at least one summary response is based on the at least one merchant response from the at least one merchant network device.

83. The hybrid sales system according to claim 82, wherein the at least one identification system comprises at least one wireless information device that contains information regarding the registered user and is programmed to
15 communicate with the at least one central network device or the at least one merchant network device.

84. The hybrid sales system according to claim 82, wherein the at least one identification system comprises:

 at least one non-volatile area of memory of the at least one user interactive
20 network device that is capable of storing information regarding the registered user,

 wherein the at least one user interactive network device is programmed to communicate with the at least one central network device or the at least one

merchant network device.

85. The hybrid sales system according to claim 82, wherein the at least one identification system comprises:

at least one memory card; and

5 at least one card reader that is capable of reading information stored in the at least one memory card and is programmed to communicate with the at least one central network device or the at least one merchant network device.

86. The hybrid sales system according to claim 82, wherein the at least one identification system comprises:

10 at least one microprocessor card; and

at least one card reader that is capable of reading information stored in the at least one microprocessor card and is programmed to communicate with the at least one central network device or the at least one merchant network device.

87. The hybrid sales system according to claim 82, wherein the at least one identification system comprises at least one information appliance that is capable of being integrated with the at least one user interactive network device, reads information regarding the registered user stored in the at least one user interactive network device, and is programmed to communicate with the at least one central network device or the at least one merchant network device.

20 88. The hybrid sales system according to claim 87, wherein the at least one information appliance includes a Personal Data Assistant, cellular telephone, interactive pager, and set-top box.

89. The hybrid sales system according to claim 82, wherein the at least one identification system comprises:

at least one magnetic card capable of storing information regarding the registered user; and

5 at least one card reader that is capable of reading information stored in the at least one magnetic card and is programmed to communicate with the at least one central network device or the at least one merchant network device.

90. The hybrid sales system according to claim 82, wherein the at least one identification system comprises:

10 at least one finger print scanning device that is used to identify the registered user; and

at least one point-of-transaction network device that is programmed to communicate with the at least one central network device or the at least one merchant network device.

15 91. The hybrid sales system according to claim 82, wherein the at least one identification system comprises:

at least one iris scanning device that is used to identify the registered user; and

20 at least one point-of-transaction network device that is programmed to communicate with the at least one central network device or the at least one merchant network device.

92. The hybrid sales system according to claim 82, wherein the at least

one identification system comprises:

at least one face recognition device that is used to identify the registered user;

and

at least one point-of-transaction network device that is programmed to

5 communicate with the at least one central network device or the at least one
merchant network device.

93. The hybrid sales system according to claim 82, wherein the at least
one identification system comprises:

at least one voice recognition device that is used to identify the registered

10 user; and

at least one point-of-transaction network device that is programmed to
communicate with the at least one central network device or the at least one
merchant network device.

94. The hybrid sales system according to claim 82, wherein the at least
15 one identification system allows the registered user to manually enter an
identification code and is capable of communicating with the at least one central
network device or the at least one merchant network device.

95. The hybrid sales system according to claim 82, wherein the at least
one user interactive network device is also the at least one identification system.

20 96. The hybrid sales system according to claim 82, wherein the at least
one user interactive network device includes a personal computer, a dummy
terminal, and an information appliance such as a Personal Data Assistant or a

cellular telephone.

97. The hybrid sales system according to claim 82, wherein the network interconnecting the at least one merchant network device, the at least one central network device, the at least one user interactive network device, and the at least one
5 identification system is secured.

98. The hybrid sales system according to claim 82, wherein one or more of the devices comprising the hybrid sales system is secured.

99. The hybrid sales system according to claim 82, wherein the information regarding physical stores contained in the at least one merchant network
10 device includes information regarding products at physical stores.

100. The hybrid sales system according to claim 82, wherein the information regarding physical stores contained in the at least one merchant network device includes information regarding services at physical stores.

101. A consumer purchase behavior analysis system, comprising,
- at least one merchant network device;
- at least one central network device;
- at least one user interactive network device; and
- 5 at least one identification system,
- wherein the at least one merchant network device, the at least one central network device, the at least one user interactive network device, and the at least one identification system are interconnected by a network,
- wherein the at least one merchant network device contains information
- 10 regarding physical stores and is programmed to communicate with the at least one central network device,
- wherein the at least one central network device is programmed to receive from a registered user at the at least one user interactive network device at least one user request for information relating to at least one transaction, to communicate with
- 15 the at least one merchant network device, and to provide to the registered user at least one summary response to the at least one user request including at a list of physical stores that satisfy the at least one user request,
- wherein the at least one user interactive network device is programmed to communicate with the at least one central network device,
- 20 wherein the at least one identification system notifies the at least one central network device, the at least one merchant network device, or the at least one user interactive network device when the registered user completes the at least one

transaction at a physical store,

wherein at least one online browsing record and at least one actual transaction record are stored in the at least one central network device, the at least one merchant network device, the at least one user interactive network device, or the

5 at least one identification system, and

wherein the at least one online browsing record and the at least one actual transaction record are compared using the at least one central network device, the at least one merchant network device, the at least one user interactive network device, or the at least one identification system.

10 102. The consumer purchase behavior analysis system according to claim 101, wherein the at least one identification system comprises at least one wireless information device that contains information regarding the registered user and is programmed to communicate with the at least one central network device or the at least one merchant network device.

15 103. The consumer purchase behavior analysis system according to claim 101, wherein the at least one identification system comprises:

at least one non-volatile area of memory of the at least one user interactive network device that is capable of storing information regarding the registered user,

wherein the at least one user interactive network device is programmed to

20 communicate with the at least one central network device or the at least one merchant network device.

104. The consumer purchase behavior analysis system according to claim

101, wherein the at least one identification system comprises:

at least one memory card; and

at least one card reader that is capable of reading information stored in the at least one memory card and is programmed to communicate with the at least one

5 central network device or the at least one merchant network device.

105. The consumer purchase behavior analysis system according to claim

101, wherein the at least one identification system comprises:

at least one microprocessor card; and

at least one card reader that is capable of reading information stored in the at

10 least one microprocessor card and is programmed to communicate with the at least one central network device or the at least one merchant network device.

106. The consumer purchase behavior analysis system according to claim

101, wherein the at least one identification system comprises at least one

information appliance that is capable of being integrated with the at least one user

15 interactive network device, reads information regarding the registered user stored in the at least one user interactive network device, and is programmed to communicate with the at least one central network device or the at least one merchant network device.

107. The consumer purchase behavior analysis system according to claim

20 106, wherein the at least one information appliance includes a Personal Data

Assistant, cellular telephone, interactive pager, and set-top box.

108. The consumer purchase behavior analysis system according to claim

101, wherein the at least one identification system comprises:

at least one magnetic card capable of storing information regarding the
registered user; and

at least one card reader that is capable of reading information stored in the at
least one magnetic card and is programmed to communicate with the at least one
central network device or the at least one merchant network device.

109. The consumer purchase behavior analysis system according to claim

101, wherein the at least one identification system comprises:

at least one finger print scanning device that is used to identify the registered
user; and

at least one point-of-transaction network device that is programmed to
communicate with the at least one central network device or the at least one
merchant network device.

110. The consumer purchase behavior analysis system according to claim

101, wherein the at least one identification system comprises:

at least one iris scanning device that is used to identify the registered user;
and

at least one point-of-transaction network device that is programmed to
communicate with the at least one central network device or the at least one
merchant network device.

111. The consumer purchase behavior analysis system according to claim

101, wherein the at least one identification system comprises:

at least one face recognition device that is used to identify the registered user;
and

at least one point-of-transaction network device that is programmed to
communicate with the at least one central network device or the at least one
5 merchant network device.

112. The consumer purchase behavior analysis system according to claim
101, wherein the at least one identification system comprises:

at least one voice recognition device that is used to identify the registered
user; and

10 at least one point-of-transaction network device that is programmed to
communicate with the at least one central network device or the at least one
merchant network device.

113. The consumer purchase behavior analysis system according to claim
1, wherein the at least one identification system allows the registered user to
15 manually enter an identification code and is capable of communicating with the at
least one central network device or the at least one merchant network device.

114. The consumer purchase behavior analysis system according to claim
101, wherein the at least one user interactive network device is also the at least one
identification system.

20 115. The consumer purchase behavior analysis system according to claim
101, wherein the at least one user interactive network device includes a personal
computer, a dummy terminal, and an information appliance such as a Personal Data

Assistant or a cellular telephone.

116. The consumer purchase behavior analysis system according to claim 101, wherein the network interconnecting the at least one merchant network device, the at least one central network device, the at least one user interactive network device, and the at least one identification system is secured.

117. The consumer purchase behavior analysis system according to claim 101, wherein one or more of the devices comprising the consumer purchase behavior analysis system is secured.

118. The hybrid system according to claim 101,
10 wherein the at least one merchant network device is programmed to periodically send at least one merchant response including information regarding physical stores to the at least one central network device,
wherein the at least one central network device stores the at least one merchant response sent by the at least one merchant network device, and
15 wherein the at least one summary response is based on the at least one merchant response stored in the at least one central network device.

119. The consumer purchase behavior analysis system according to claim 101,
wherein the at least one merchant network device is programmed to receive
20 at least one central information request from the at least one central network device and is programmed to provide at least one merchant response to the at least one central information request to the at least one central network device,

wherein the central network device is programmed to construct the at least one central information request based on the at least one user request, to send the at least one central information request to the at least one merchant network device, to receive the at least one merchant response from the at least one merchant network
5 device, and

wherein the at least one summary response is based on the at least one merchant response from the at least one merchant network device.

120. The consumer purchase behavior analysis system according to claim 101, wherein the information regarding physical stores contained in the at least one
10 merchant network device includes information regarding products at physical stores.

121. The consumer purchase behavior analysis system according to claim 101, wherein the information regarding physical stores contained in the at least one merchant network device includes information regarding services at physical stores.

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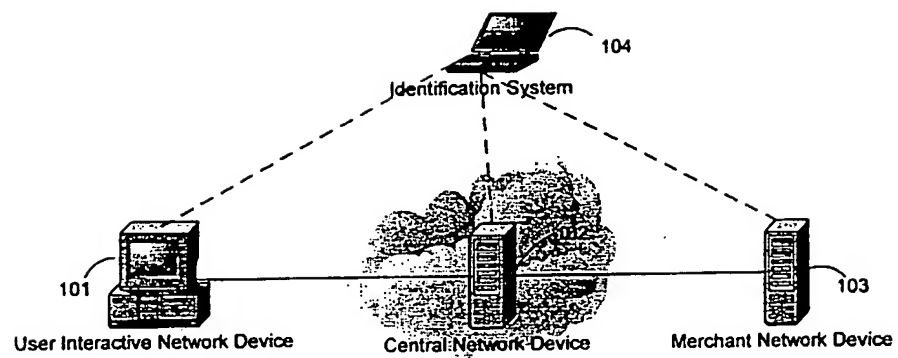


FIG. 1

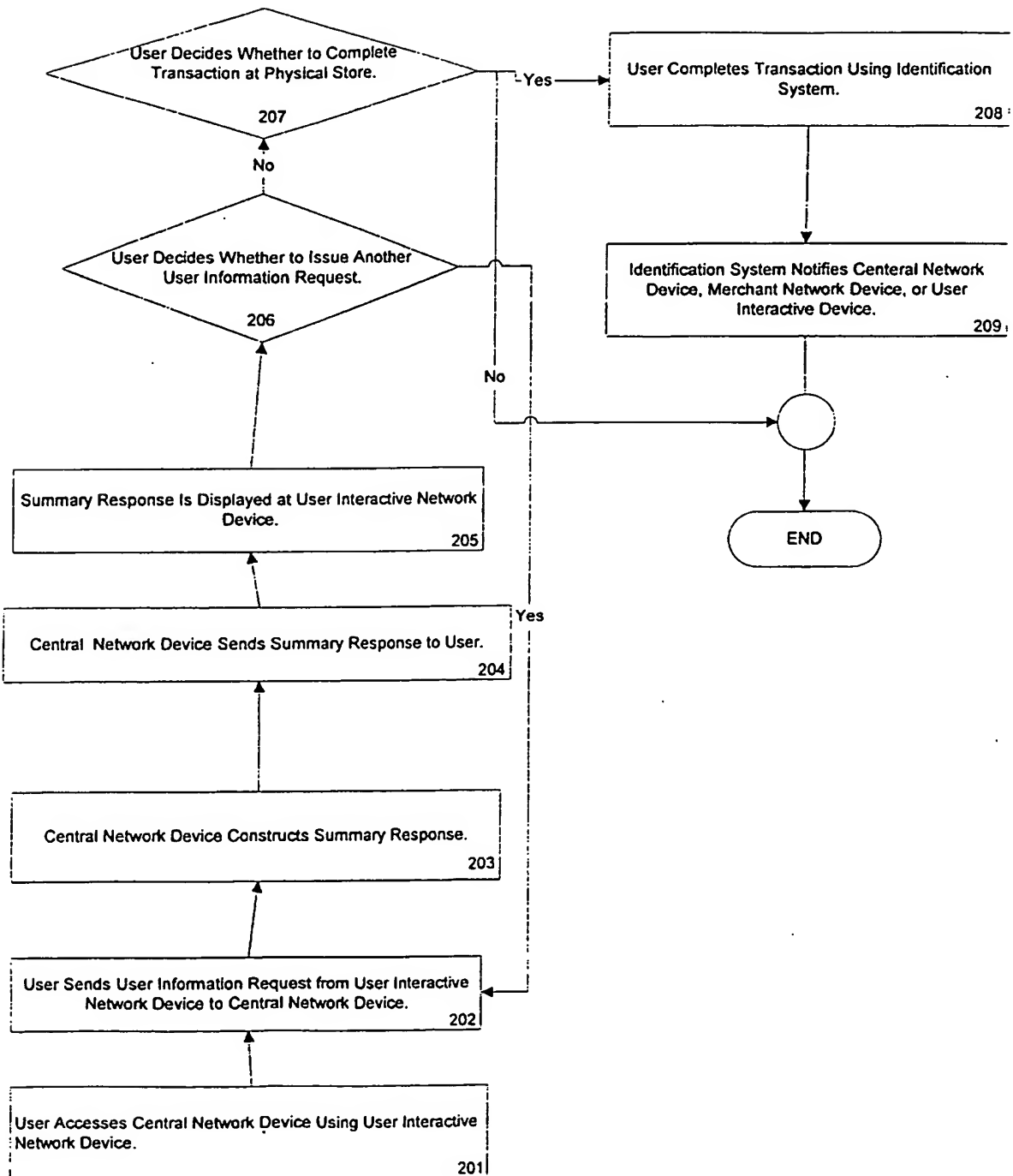


FIG. 2

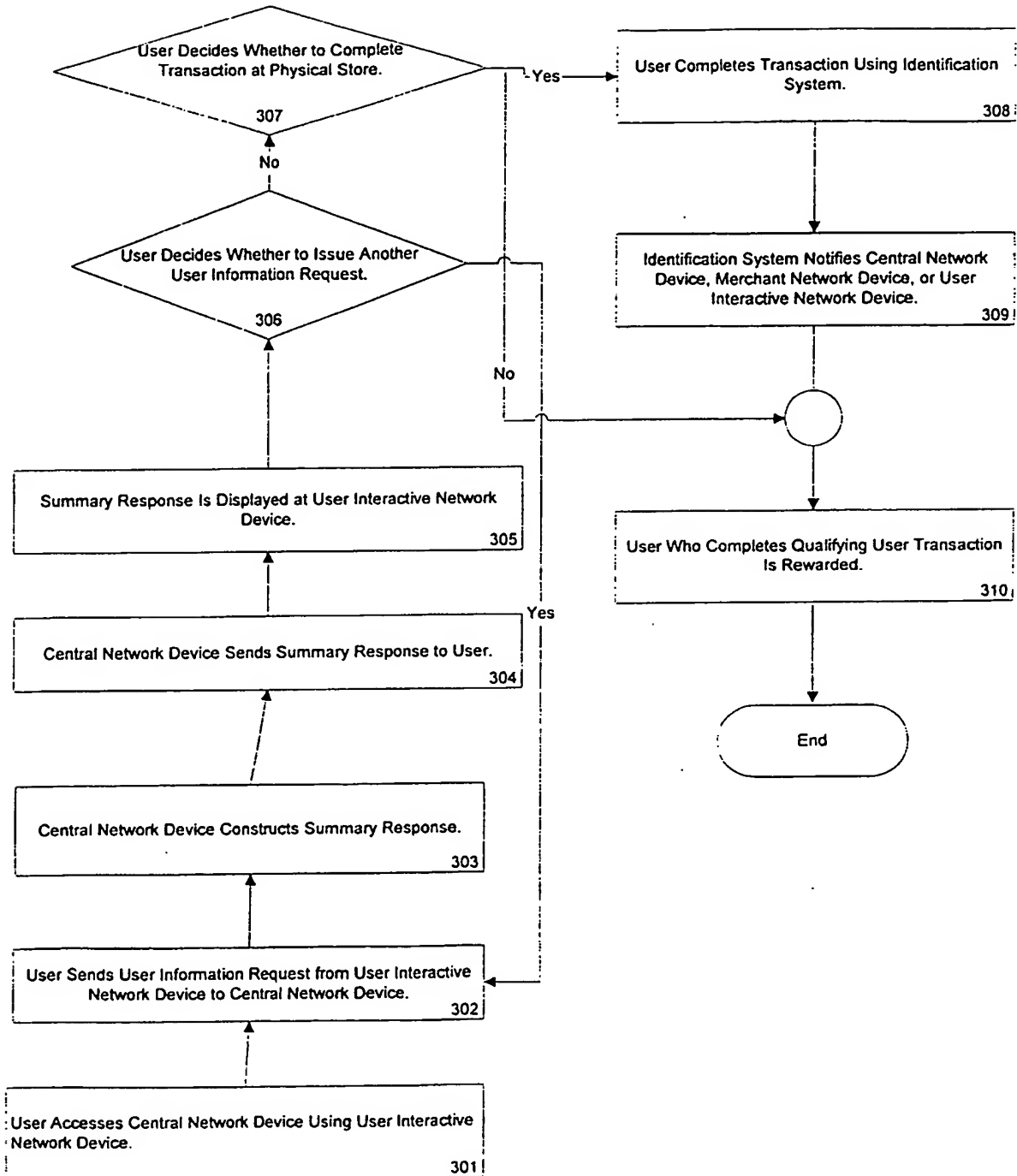


FIG. 3

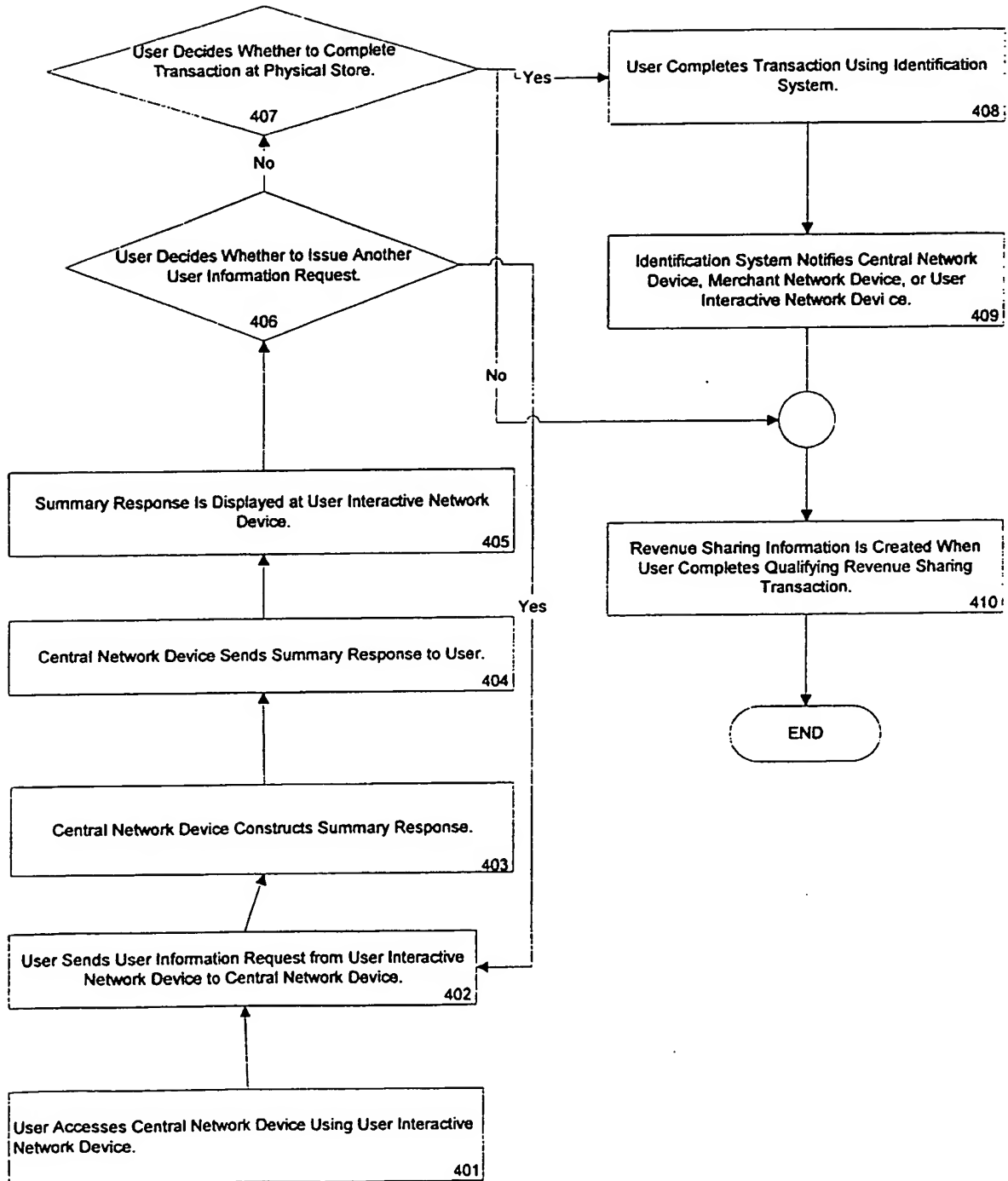


FIG. 4

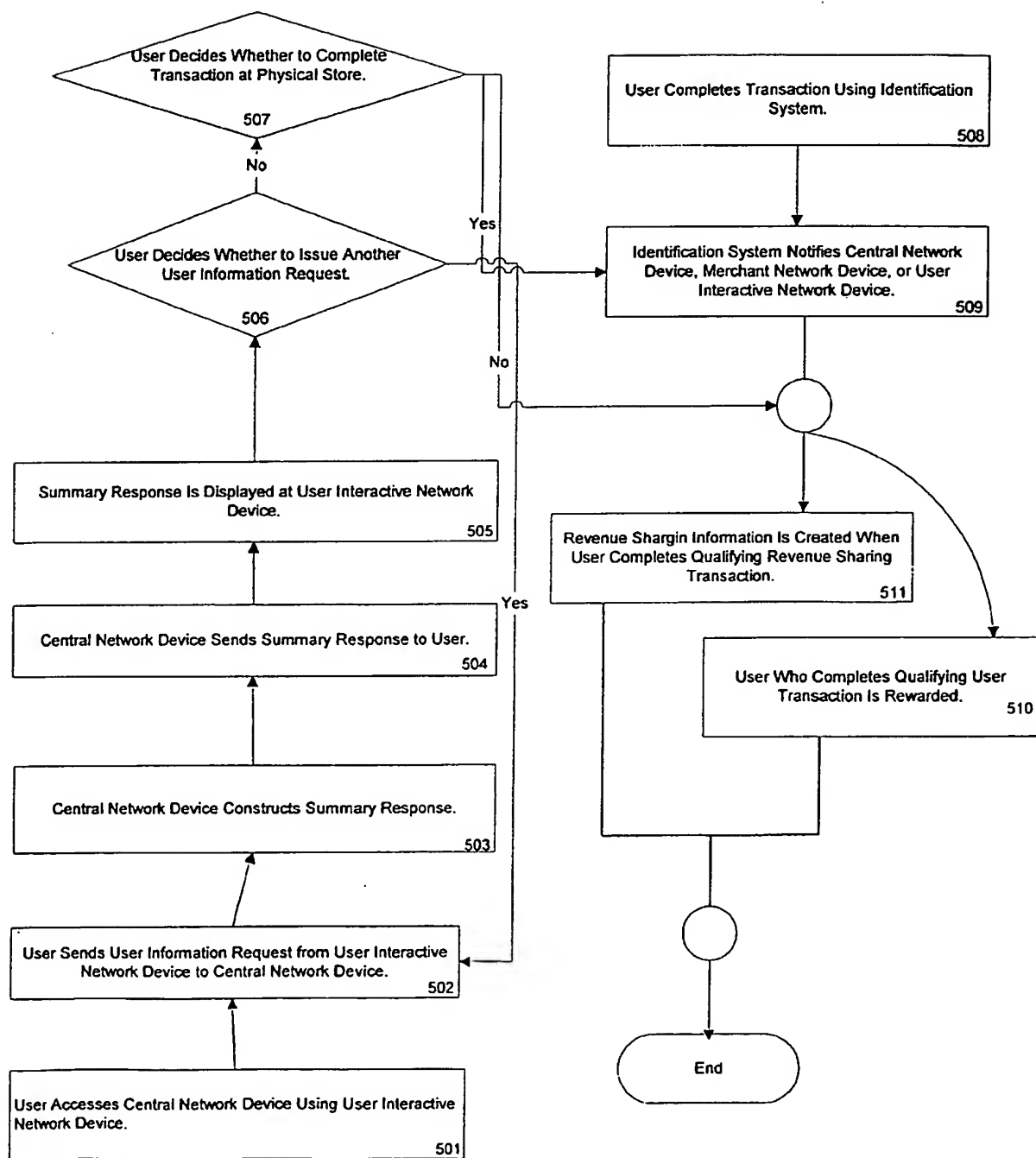


FIG. 5

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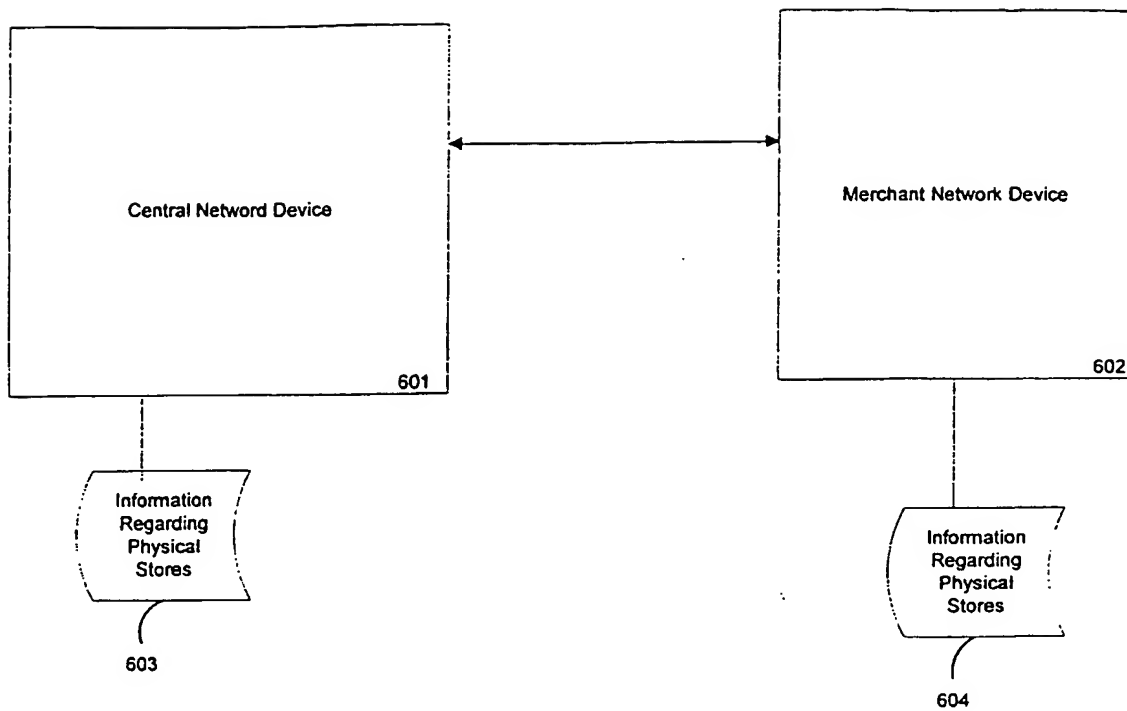


FIG. 6

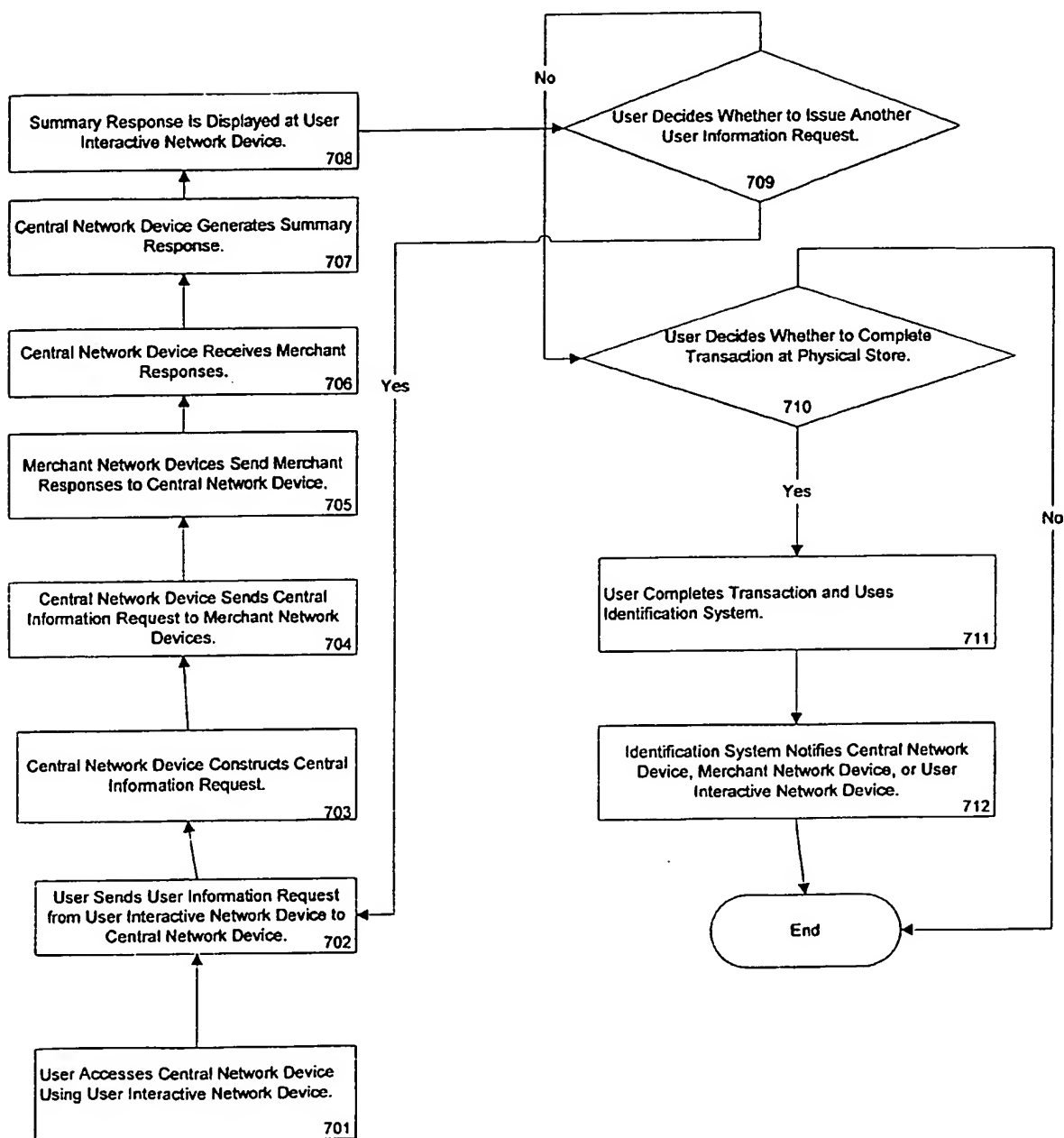


FIG. 7

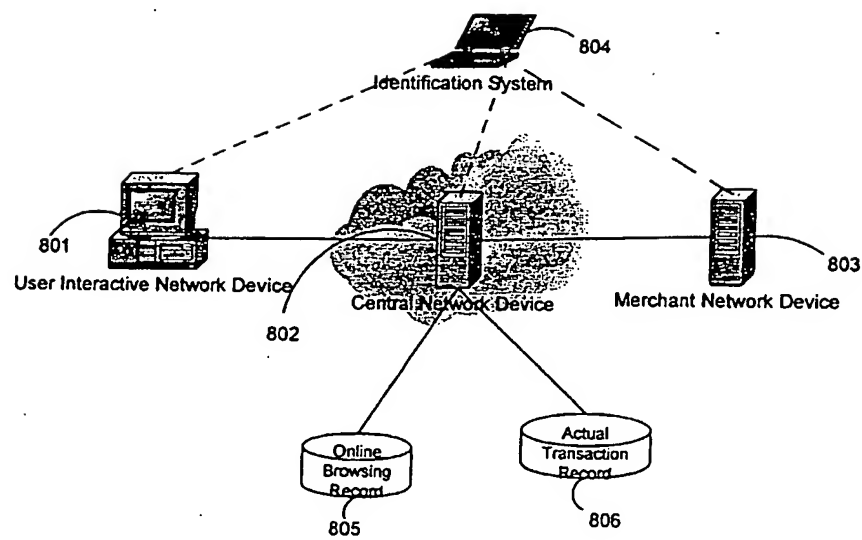


FIG. 8

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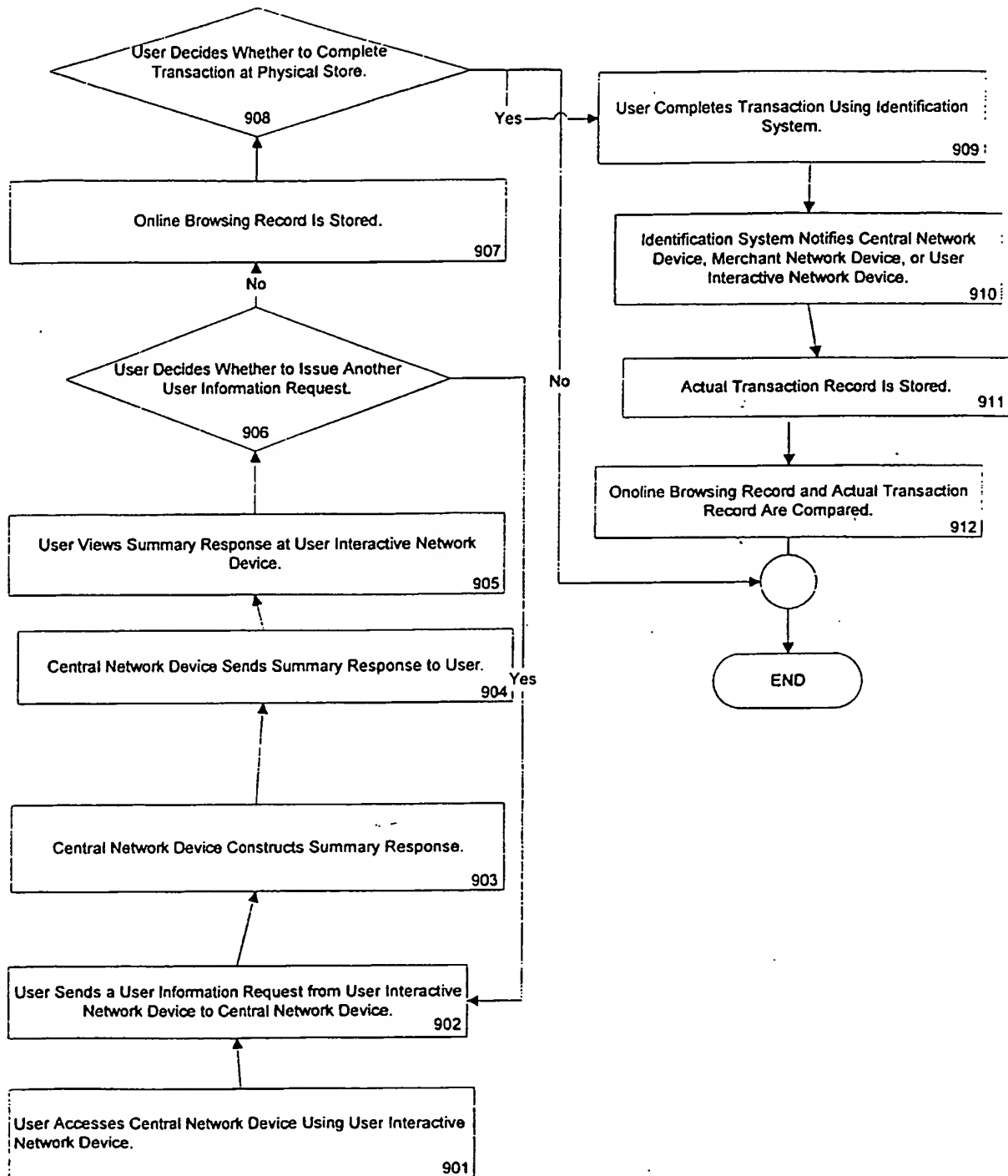


FIG. 9